

HC420LA+ZE

Steel grades with high yield strength
for cold forming – micro-alloyed

Material no.	1.0556
according to	DIN EN 10268, Edition 10.06

Chemical composition (in percent by weight)

	min.	max.
C		0.100 %
Si		0.500 %
Mn		1.600 %
P		0.025 %
S		0.025 % ¹⁾
Al	0.015 %	
Nb		0.090 % ²⁾
Ti		0.150 % ²⁾

1) If agreed in the order the maximum sulphur content is 0,012 % after finished part analyse.

2) These additional elements may be added single or in combination, if they are contained in the specification of the steel grade and the mass fraction being within the permissible limits. Vanadium can also be added. The total of the mass fractions of all three elements shall not exceed 0,22 %.

Mechanical properties (transverse)

Yield strength $R_{eL}/R_{p0,2}$	420 – 520 MPa
Tensile strength R_m	470 – 590 MPa
Total elongation A_{80}	≥ 17 %

The samples for the tensile test are taken at right angles to rolling direction unless the product width is opposed to this.

Available dimensions

Thickness in mm	Width in mm
0.70 – 1.40	900 – 1,300
1.41 – 1.90	900 – 1,500
1.91 – 2.00	900 – 1,600

Surface finish

Micro-alloyed steel grades with higher yield points can only be supplied with surface finish A and 03 respectively.